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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michael D. Potter

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EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,016

Applicant(s)

POTTER, MICHAEL D.

Examiner

Tamai I.E. Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6,8-16,19 and 21-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,6,8-16,19 and 21-26 is/are allowed.
- 6) ☒ Claim(s) 27-37, 39-46, and 49-58 is/are rejected.
- 7) ☒ Claim(s) 38 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the additional stored static charge of claim 27 must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The amended title is approved. The objection to the title is withdrawn.
3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: member with an additional stored static charge of claim 27.

Claim Objections

4. Claims 27-33 are objected to because of the following informalities: Claims 27-33 are objected to because they are vague and indefinite. The claims are vague and indefinite because Claims 27 recites an additional stored static charge when a first stored static charge has not been claimed. For the purpose of advancing prosecution on the merits the examiner assumes the member has a first and an additional stored charge. Claims 28, 29, and 32 are objected to because there is no antecedent basis for "the stored electrical charge". Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 27, 31, 52, and 56 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Iwamatsu (JP 02-219478)(see translation). Iwamatsu teaches moving a stored static charge with respect to a pair of electrodes and outputting the resultant potential (figure 1). Iwamatsu teaches moving the electrodes while holding the stored static charge stationary (figure 3). Iwamatsu teaches the moving member is a single layer of a material such as PbZrTi oxide (inherently includes titanium oxide).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 28, 34, 35, 37, 39, 42, 43, 44, 46, 48, 51, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu (JP 02-219478)(see translation) and Jewett et al. (Jewett)(US 3,405,334). Iwamatsu teaches every aspect of the invention except a housing and a monopole static charge. Jewett teaches an electrostatic generator for powering a load having housing 155 to protect and support the generator and monopoles electrodes for generating electrical power in a small vibrating electrode arrangement. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Iwamatsu with the housing and monopole arrangement of Jewett to provide a compact generator with low voltage and high current, as taught by Jewett.

9. Claims 29 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu. Iwamatsu teaches every aspect of the invention except the additional stored static charge being at least 1×10^{10} charges/cm². It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Iwamatsu with the additional stored static charge being 1×10^{10} charges/cm² to optimize the current generated, and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

10. Claims 30 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu, in further view of Wahlstrom (US 4126822). Iwamatsu teaches every aspect of the invention except storing the output potential. Wahlstrom teaches electrostatic generators are used to store/recharge watch batteries. It would have been obvious to a person of ordinary skill in the art to construct the electrostatic generator of Iwamatsu with the battery of Wahlstrom to prolong the life of a device with a battery.

11. Claims 32 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu, in further view of Spence (US 3,786,495). Iwamatsu teaches every aspect of the invention except the member having two or more dielectric layers with the charge stored therebetween or the specific material (as set forth in claim 13). Spence teaches an electrostatic charge being stored between insulating layers 14 and 16, of silicon

oxide and silicon nitride. It would have been obvious to a person of ordinary skill in the art to construct the electrostatic generator of Iwamatsu with the insulating layers of Spence to create a large charge density.

12. Claims 33 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu, in further view of Crites (US 4,288,735). Iwamatsu teaches every aspect of the invention except the member comprising a single dielectric layer. Crites teaches the moving member having a stored electrical charge member 61 with a monopole structure. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Iwamatsu with the single layers dielectric stored charge because Crites teaches the single layer electret can be made very thin and maintain a suitable charge.

13. Claims 36 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu and Jewett. Iwamatsu and Jewett teach every aspect of the invention except the additional stored static charge being at least 1×10^{10} charges/cm². It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Iwamatsu and Jewett with the additional stored static charge being 1×10^{10} charges/cm² to optimize the current generated, and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

14. Claims 40 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu and Jewett, in further view of Spence (US 3,786,495). Iwamatsu and Jewett teach every aspect of the invention except the member having two or more dielectric layers with the charge stored therebetween or the specific material (as set forth in claim 13). Spence teaches an electrostatic charge being stored being insulating layers 14 and 16, of silicon oxide and silicon nitride. It would have been obvious to a person of ordinary skill in the art to construct the electrostatic generator of Iwamatsu and Jewett with the insulating layers of Spence to create a large charge density.

15. Claims 41 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu and Jewett, in further view of Crites (US 4,288,735). Iwamatsu and Jewett teach every aspect of the invention except the member comprising a single dielectric layer. Crites teaches the moving member having a stored electrical charge member 61 with a monopole structure. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Iwamatsu with the single layers dielectric stored charge because Crites teaches the single layer electret can be made very thin and maintain a suitable charge.

Double Patenting

16. The double patenting rejections is withdrawn.

Allowable Subject Matter

17. Claims 1-3, 8-16, 19, and 21-26 are allowed.
18. Claim 38 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. Applicant's arguments with respect to claims 27-58 have been considered but are moot in view of the new grounds of rejection.

Conclusion

20. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (703) 872 - 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
January 30, 2006



KARL TAMAI
PRIMARY EXAMINER